

Hz  
means for distributing sequentially into each segment a number of discrete events equal to the segment size for each segment.

### REMARKS

Applicants appreciate the Examiner's indication that claims 8, 9, 22 and 23 would be allowable if rewritten into independent form. Applicants have accordingly amended claim 8 and 22 to be independent claims. Applicants have also submitted proposed drawing changes according to the Examiner's suggestion. No new matter is added with these amendments. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

The drawings have been objected to because Figs. 1 and 2 were not labeled as "PRIOR ART." Applicants have submitted a proposed drawing change in red ink indicating that these figures are prior art figures.

Claims 1, 4-7, 10-15, 18-21, and 24-26 have been rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 5,179,702 to Spix et al. ("Spix") in view of U.S. Patent No. 5,305,454 to Record et al. ("Record"). Claims 2, 3, 16, 17, 27, and 28 have been rejected under 35 U.S.C. § 103 over the combination of Spix and Record and further in view of U.S. Patent No. 5,303,297 to Hillis ("Hillis"). In each of these combinations, Spix allegedly discloses many of the features of the claims. Spix does not show, however, the processing of a plurality of discrete events. Record allegedly discloses this feature. It is further alleged that it would have been obvious to modify Spix in view of Record because it would provide Spix with the enhanced capability of efficiently receiving sequential notification of an occurrence of an event. Further, because Spix and Record do

not disclose processing billing events, Hillis is cited. It allegedly would have further been obvious to apply the Spix/Record combination to billing in view of Hillis because then Spix/Record could be applied to process a large number of customer bills. Applicants respectfully traverse.

#### Spix Does Not Disclose Many Of The Features Of The Claimed Invention

Spix is alleged to disclose processing a plurality of discrete processes comprised of one or more threads. Allegedly, Spix discloses initiating a plurality of segments to execute concurrently. Also, Spix allegedly discloses that each independent sub-event which is alleged to also be the thread is processed sequentially as determined by priority.

Applicants first note that a thread cannot be both a segment and an independent sub-event as claimed. As recited in claim 1, a segment comprises a plurality of discrete events, each discrete event comprising a plurality of independent sub-events. Each segment thus comprises a plurality of independent sub-events organized into discrete events. There is no suggestion from Spix that any of the events are organized into segments or that there are discrete events comprising independent sub-events which are processed sequentially within each discrete event or that the discrete events are processed sequentially within each segment. Further, as for sequential processing, Spix discloses and teaches using priority. Prioritization schemes are not sequential. For example, if a higher priority process is to be handled, regardless of its time of initiation, that process is handled before lower priority processes. Spix, Col. 29, Line 53 - Col. 30, Line 19. Therefore, Spix is insufficient to disclose or suggest many of the features of the present invention.

Particularly, with respect to claims 1-7 and 9-13, Spix does not disclose “each discrete event comprising a plurality of independent sub-events,” “distributing each discrete event into one of a plurality of segments,” “for each segment, processing each discrete event contained with each segment sequentially,” or “for each segment, processing each independent sub-event of said discrete event sequentially and then storing the results of said processing.” Similar features are recited in claims 14-21 and 24-28 and are missing from Spix.

#### The Combination of Spix and Record Is Improper

##### Record Is Non-Analogous Art

In order for Record to be properly considered for the present application, Record must be considered analogous art. To be analogous art, first, it must be determined whether the reference is within the field of the inventor's endeavor. Second, assuming the reference is outside that field, it must be determined whether the reference is “reasonably pertinent to the particular problem with which the inventor was involved.” In re Deminiski, 796 F.2d 436, 442 (Fed. Cir. 1986); see also In re Clay, 966 F.2d 656, 659 (Fed. Cir. 1992) Record satisfies neither test.

The present invention relates to the processing of a plurality of discrete events in a batch processing environment. Record, on the other hand, relates to an operating system which manages resources for handling events. In Record, the operating system does not process the events, but rather provides the events with resources requested so that an application program or other event generator may perform processing. Therefore, Record does not relate to methods of processing discrete events.

Moreover, the present invention is directed to the problem of speed and efficiency of processing a plurality of discrete events. Record does not address the problem of processing discrete events and therefore would provide no solution for the problem addressed by the present invention. Therefore, it is asserted that Record would not have been considered by one of ordinary skill in the art when faced with the problem addressed by the inventors of the present application.

A Prima Facie Case Of Obviousness Has Not Been Established

Even assuming, *arguendo*, that Record were considered analogous art, the Office Action fails to set forth a proper *prima facie* case of obviousness. To properly set forth a *prima facie* case of obviousness “*evidence*, preferably in the form of some teaching, suggestion, incentive or inference in the applied prior art, or in the form of generally available knowledge, that one having ordinary skill in the art *would have been led* to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention” must be presented. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300, 1301 (Fed. Cir. 1993) (emphasis in original). No such evidence has been set forth.

Although the Office Action alleges that the combination of Spix and Record would have been obvious, the reason cited appears to be derived from hindsight and not from the prior art as a whole. The Office Action asserts that improving Spix to provide for notification of occurrence of events as in Record would have been obvious. Applicants respectfully disagree. Spix already provides for notification of occurrence of events through interrupts, help requests, etc. See, e.g., Spix, Col. 29, Lines 25-69. There is no motivation to apply a different type of indication system, let alone the specific disclosure of Record.

Therefore, even if Record were considered relevant, there has been no showing why one of ordinary skill in the art would replace the indication scheme of Spix and particularly, why one of ordinary skill in the art would select the scheme of Record as asserted.

#### The Combination of Spix and Record Is Insufficient

In addition to the deficiencies in Spix indicated above, the combination of Spix and Record is further insufficient to render any of the pending claims unpatentable because of the deficiencies in the disclosure of Record. Record is alleged to disclose processing a plurality of events. As discussed above, Record discloses an operating system which manages processes. Record does not suggest how to process a plurality of events as recited in the claims and therefore, cannot make up for the deficiencies of Spix.

#### The Further Combination of Spix and Record with Hillis Is Improper

In addition to the reasons cited above why the combination of Spix and Record is improper, the recited combination of Spix, Record and Hillis is improper for the following additional reasons. Specifically, there is no motivation from the prior art as a whole to apply the Spix/Record combination to process billing transactions. The asserted motivation for combining Spix/Record with Hillis is that it would provide “Spix & Record’s system with the enhanced capability of efficiently processing large numbers of customer bills and invoices.” While that may be an advantage of the combination, this advantage is not suggested from the prior art as required by Levengood. Rather, the hindsight recognition of an advantage of combining references is not proper. A motivation or suggestion for the combination must be provided from the prior art. There has been no indication from the

prior art that it would be advantageous to apply the system of either Spix or Record to process customer bills.

CONCLUSION

For at least the foregoing, applicants respectfully request reconsideration and allowance of all pending claims. If the Examiner believes that an interview, either personal or telephonic, would assist in the prosecution of this application, Applicants' representatives would welcome the opportunity.

Respectfully submitted,

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Enclosure